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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,589

11/30/2005

Rainer Domesle

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KALOW & SPRINGUT LLP
488 MADISON AVENUE
19TH FLOOR
NEW YORK, NY 10022

EXAMINER

STALDER, MELISSA A

ART UNIT

PAPER NUMBER

4162

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/535,589	Applicant(s) DOMESLE ET AL.	
	Examiner MELISSA STALDER	Art Unit 4162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05-19-05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of "and/or" in this claim causes confusion because the claim lists three processes.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (US 5,139,993) in view of Domesle (US 5,446,006). Schmidt teaches a method of improving the thermal shock behavior of monolithic catalysts using a pre-coating dispersion process to be used on ceramic monolithic catalyst carriers. However, Schmidt does not teach a catalyst support with two structures with different absorbtivity. Domesle teaches a monolithic catalyst which also contains a metal carrier that is a coiled jacket foil. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the catalyst of Domesle with the process of Schmidt

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because Schmidt teaches that the porous ceramic structure is strengthened by the pre-coating process before the metal catalyst is applied (col. 1, lines 21-30).

3. Regarding claims 2 and 7, Schmidt teaches the addition of an organic filling agent which can be melted, burned out and is insoluble in water into the catalytic carrier before the application of the catalytically active component (col. 2, lines 50-54).

4. Regarding claims 3 and 8, Schmidt teaches that the material that can be burnt out is a higher hydrocarbon such as paraffin wax or a polymer such as polyethylene wax (col. 2, lines 20-22).

5. Regarding claims 4-6, Schmidt teaches that the carrier is pre-coating with the organic filling agent by treatment with an aqueous dispersion (col. 3, lines 1-7). Schmidt teaches that possibly emulsifiers are fatty alcohol, polyglycol ethers, or nonylphenyl polyglycol ethers (alcohols) (col. 3, lines 22-24).

6. Regarding claim 9, Schmidt teaches a pre-coating process where the catalysis-promoting metal oxide film, which optionally contains the catalytically active component, is applied onto the carrier by means of dispersion coating technique (col. 2, lines 60-64).

7. Regarding claim 11, Schmidt teaches that the highly dispersed dispersion in the aqueous system is impregnated into the carrier (col. 2, lines 54-56).

8. Regarding claim 12, Schmidt teaches that after treatment the catalysts were placed into a furnace and heated, then removed and cooled in air (calcined) (col. 5, lines 15-18).

9. Regarding claim 13, Schmidt teaches a catalyst that can be produced through the coating support process (claim 1).

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10. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domesle (US 5,446,006) in view of Koschlig (US 4,916,106). Domesle teaches a monolithic catalyst (structure with high porosity) with attached metal carrier (structure with low porosity) but does not teach the percentage of the total mass of the coat present on the structure with high porosity. Koschlig teaches a supported catalyst and the process for its production where the porous carrier is coated with 8.9%, 7.3 %, 14.4%, and 15% by weight of the prepared catalytic material (Table II, III, IV, and Example 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the catalyst of Domesle with the percentage of coating of Koschlig because the porous ceramic support materials have a larger specific surface area available for active catalyst contact and so need less active coat (col. 1, lines 36-54).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA STALDER whose telephone number is (571)270-5832. The examiner can normally be reached on Monday-Friday, 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MS

/Jennifer McNeil/
Supervisory Patent Examiner, Art Unit 4162